

## REMARKS

Claims 1-24, 32-43, 51-77, 85-90, 92-105, 112-123 and 164 are rejected.

### I. ATTORNEY DOCKET NUMBER

It is respectfully requested that the Attorney Docket Number be changed from “36601/CAG/B600” to “**15258US02**”. In future correspondence, kindly refer to Attorney Docket No. **15258US02**. Thank you.

### II. OBVIOUSNESS REJECTION

Claims 16-18, 22-24, 97, 103-15 and 119 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,366,622 B1 (“Brown”) in view of U.S. Patent No. 5,594,456 (“Chen”). Applicants respectfully traverse the rejection as set forth below.

#### A.

“It is improper to combine references where the references teach away from their combination.” M.P.E.P. § 2145(X)(D)(2).

Brown fairly states that “[t]he present invention relates to *wireless* communications, and more particularly, to a *radio* for use in *wireless* communication”. In fact, the title of Brown is “Apparatus and Method for *Wireless* Communications”.

The attention of the Examiner is now respectfully drawn to Chen at FIG. 1; and col. 3, line 58 to col. 4, line 11. Chen relates to an apparatus and method of combining E1 fiber optic cables into E2 fiber optic cables which, in turn, are combined into E3 fiber optic cables which, in turn are combined into E4 fiber optic cables. The components of the synchronous plesiochronous digital hierarchy (SPDH) system found, for example, Chen at FIGS. 5 and 6 (which the Examiner relies on in support of the rejection) would never be found in Brown’s radio for use with wireless communications.

In viewing Chen at FIG. 1, *each E1 cable represents a different user*. It is inconceivable that apparatus related to Chen’s E1 cables (representing different users) would be found inside Brown’s (single user) radio for use with wireless communications.

In fact, Chen states that “[o]ne of the most important communication media is fiber optic because it can transmit signals having extremely high signaling rate and is immune to many sources of noise”. Chen at col. 2, lines 9-11.

Brown’s teaching of a radio of wireless communications teaches away from Chen’s teaching of a SPDH system for use with a fiber optic system. Brown’s radio is vulnerable to many types of noise that are specific to wireless radios and yet are not an issue for Chen’s fiber optic system. Brown’s radio is subject to multipath and external radio sources that cause noise. Thus, Brown’s radio teaches away from Chen’s fiber optic system uses cable to shield and to guide the cable signal, thereby making the cable signal immune to multipath and external radio issues.

Since Brown teaches away from Chen, it is respectfully submitted that M.P.E.P. § 2145(X)(D)(2) states that it is improper to combine Brown and Chen.

Accordingly, the obviousness rejection based on the improper combination of Brown and Chen cannot be maintained.

It is therefore respectfully requested that rejection under 35 U.S.C. § 103(a) be withdrawn with respect to claims 16-18, 22-24, 97, 103-15 and 119.

## **B.**

“It is improper to combine references where the references teach away from their combination.” M.P.E.P. § 2145(X)(D)(2).

Brown specifically teaches away from the use of frequency multiplier circuitry and frequency divider circuitry.

“Operating the VCO 248 at the same frequency as the incoming RF signal has the **advantage of eliminating the need for multiplier or divider circuitry** that would normally be associated with the amplifier 252. **Eliminating this additional circuitry that is traditionally used results in a lower current, smaller and lower cost solution.**” Brown at col. 17, lines 18-23.

On the other hand, Chen, not only uses frequency multiplier circuitry and frequency divider circuitry, but needs to use frequency multiplier circuitry and frequency divider circuitry

to facilitate the Chen invention. See, e.g., Chen at FIG. 5 at “Divide By N” block 328, “Divide by K” block 326 and “Multiply by (N+1)” block 330. Chen must use frequency multiplier circuitry and frequency divider circuitry to facilitate the synchronization that is necessary for a synchronous plesiochronous digital hierarchy (SPDH) system. As explained, Chen needs the frequency multiplier circuitry and the frequency divider circuitry to “send exactly one SYNC byte and N bytes of data for every N+1 clock cycles of the clock”. Chen at col. 7, lines 28-30.

Thus, while Chen requires frequency multiplier circuitry and frequency divider circuitry, Brown teaches away from Chen by finding it advantageous to eliminate “the need for multiplier or divider circuitry”.

Since Brown teaches away from Chen, it is respectfully submitted that M.P.E.P. § 2145(X)(D)(2) states that it is improper to combine Brown and Chen.

Accordingly, the obviousness rejection based on the improper combination of Brown and Chen cannot be maintained.

It is therefore respectfully requested that rejection under 35 U.S.C. § 103(a) be withdrawn with respect to claims 16-18, 22-24, 97, 103-15 and 119.

### C.

“A prior art reference that ‘teaches away’ from the claimed invention is a ***significant factor*** to be considered in determining obviousness ....” M.P.E.P. § 2145(X)(D)(1) (emphasis added). “A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.” M.P.E.P. § 2141.02(VI) (underlining in the original).

To the extent that the Examiner alleges that the claims require frequency multiplier circuitry and/or frequency divider circuitry, Brown clearly and directly teaches away from frequency multiplier circuitry and/or frequency divider circuitry.

Brown specifically teaches away from the use of frequency multiplier circuitry and frequency divider circuitry.

“Operating the VCO 248 at the same frequency as the incoming RF signal has the *advantage of eliminating the need for multiplier or divider circuitry* that would normally be

associated with the amplifier 252. *Eliminating this additional circuitry that is traditionally used results in a lower current, smaller and lower cost solution.*” Brown at col. 17, lines 18-23.

Since Brown teaches away from the Examiner’s alleged interpretation of the claimed inventions as set forth in claims 16-18, 22-24, 97, 103-15 and 119, M.P.E.P. § 2141.02(VI) states that this is a ***significant factor*** in determining obviousness.

In view of M.P.E.P. § 2141.02(VI), it is respectfully submitted that the obviousness rejection cannot be maintained based, at least in part, on Brown which specifically and directly teaches away from the claimed inventions (as interpreted by the Examiner).

It is therefore respectfully requested that rejection under 35 U.S.C. § 103(a) be withdrawn with respect to claims 16-18, 22-24, 97, 103-15 and 119.

### **III. ANTICIPATION REJECTION**

Claims 1-15, 19-21, 32-43, 51-77, 86-90, 92-96, 100-102, 112-118, 122, 123 and 164 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Brown. Applicants respectfully traverse the rejection as set forth below.

Claim 15 recites generating the clock in claim 14 by mixing a second clock with a third clock. In other words, the clock that is used in downconversion in claim 14 is generated by ***mixing*** a second clock with a third clock.

Please identify the clock used in downconversion in claim 14.

Was said clock generated by ***mixing*** a second clock with a third clock?

Please identify the second clock and the third clock.

It is respectfully submitted that Brown does not describe the elements as set forth in claim 15, which depends from claim 14.

Claims 38 and 96 recite similar elements. Accordingly, Brown does not anticipate claims 38 and 96.

For at least the above reasons, it is respectfully requested that rejection under 35 U.S.C. § 102(e) with respect to claims 15, 38 and 96 be withdrawn.

In this light of this discussion, after identifying a clock, a second clock and a third clock as recited in some of the claims with all the interrelationships therebetween, the Examiner is requested to review and to reconsider the rejections of claims with similar issues.

In addition, claim 1 recites, in part, “programming one of the receiver and the transmitter to process communication protocol for a local area network or a personal area network; ... wherein the programming comprises programming a demodulator with a demodulation”.

In support of “wherein the programming comprises programming a demodulator with a demodulation”, the Office Action cites Brown at the Abstract; col. 7, lines 2-21; col. 8, lines 25-36; col. 10, lines 16-31 and col. 23, lines 50-57. Applicants respectfully taken aback by the number of citations allegedly describing such a short phrase as programming a demodulator with a demodulation. Nevertheless, Applicants have carefully perused each citation to Brown and is still unable to find a description of programming a demodulator with a demodulation.

For example, the Abstract, in relevant part, merely states that “[t]he modem is coupled to the radio and is configured to demodulate received data and modulate data for transmission”. Nowhere does Brown state that a demodulator was programmed with a demodulation. In fact, there appears to be no mention of programming at all. It appears that “configured” might have been stretched to meanings that are not supported by the specification of Brown. The Examiner is requested to provide supporting evidence from the specification in Brown, rather than making unsupported interpretations from the Abstract.

Brown at col. 7, lines 2-21, in relevant part, merely notes that the “LC 24 is specific to the system since it implements system protocol functions. It is also specific to the type of modulation used in the system and it is also dependent upon the type of radio architecture implemented.” There appears to be no description of programming a demodulator with a demodulation. In fact, there appears to be no mention of programming at all. [Note: just because a physical key is specific to a type of a particular door knob; it does not necessarily follow that the physical key has been programmed.]

Brown at col. 8, lines 25-36, in relevant part, merely states that “[t]he modem is coupled to the radio and is configured to demodulate received data and modulate data for transmission”.

Again, it appears that “configured” might have been stretched to meanings that are not supported by the specification of Brown. There appears to be no description of programming a demodulator with a demodulation. In fact, there appears to be no mention of programming at all.

Brown at col. 10, lines 16-31, in relevant part, states that “[d]emodulation of the received signal, as well as modulation of the signal for transmission, may be provided by a modem”. There appears to be no description of programming a demodulator with a demodulation. In fact, there appears to be no mention of programming at all.

Brown at col. 23, lines 49-57, in relevant part, states that “the modem 1104 includes a demodulator 1196 for demodulating received data ..... The modem 1104 is capable of performing GFSK ... demodulation, frame timing recovery, and frequency hop control.” There appears to be no description of programming a demodulator with a demodulation. In fact, there is no mention of programming at all.

Since Brown does not describe each and every element as set forth in claim 1, Brown does not anticipate claim 1.

For at least the above reasons, it is respectfully requested that the rejection under 35 U.S.C. § 102(e) be withdrawn with respect to claim 1 and its rejected dependent claims (i.e., claims 2-15, 19-21 and 164).

The same or similar arguments can be made, if applicable, to independent claims 32, 51, 85 and 112 as have been made with respect to independent claim 1.

For at least the above reasons, it is respectfully requested that the rejection under 35 U.S.C. § 102(e) be withdrawn with respect to independent claims 32, 51, 85 and 112 and their rejected dependent claims (i.e., claims 33-43, 52-77, 86-90, 92-96, 100-102, 113-118, 122 and 123)

#### **IV. CONCLUSION**

Applicants do not necessarily agree or disagree with the Examiner’s characterization of the documents made of record, either alone or in combination, or the Examiner’s characterization

of recited claim elements. Furthermore, Applicants respectfully reserve the right to argue the characterization of the documents of record, either alone or in combination, to argue what is allegedly well known, allegedly obvious or allegedly disclosed, or the characterization of the recited claim elements should that need arise in the future.

With respect to the present application, Applicants hereby rescind any disclaimer of claim scope made in the parent application or any predecessor or related application. The Examiner is advised that any previous disclaimer of claim scope, if any, and the alleged prior art that it was made to allegedly avoid, may need to be revisited. Nor should a disclaimer of claim scope, if any, in the present application be read back into any predecessor or related application.

In view of at least the foregoing, it is respectfully submitted that the present application is in condition for allowance. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the below-listed telephone number.

The Commissioner is hereby authorized to charge any additional fees, to charge any fee deficiencies or to credit any overpayments to the deposit account of McAndrews, Held & Malloy, Account No. 13-0017.

Dated: April 4, 2008

Respectfully submitted,

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